LEXAN™ ML6413 resin

Polycarbonate

SABIC Innovative Plastics

Message:

LEXAN ML6413 resin is an impact modified, flame retardant polycarbonate grade with Br- & Cl-free FR systems. It features improved light shielding capability with good flow, impact and thermal properties suitable for various applications.

General Information			
Additive	Flame Retardant Impact Modifier		
Features	Bromine Free Chlorine Free Flame Retardant Good Flow Good Impact Resistance Impact Modified Medium Heat Resistance		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.20	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	24	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	20.0	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.80	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.30	%	
Equilibrium, 23°C, 50% RH	0.10	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	2500	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	58.0	MPa	ASTM D638
Yield	62.0	MPa	ISO 527-2/50
Break [3]	55.0	MPa	ASTM D638
Break	58.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	5.0	%	ASTM D638
Yield	5.0	%	ISO 527-2/50

Break [5]	100	%	ASTM D638
Break	100	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [6]	2250	MPa	ASTM D790
-- [7]	2350	MPa	ISO 178
Flexural Stress			
--	90.0	MPa	ISO 178
Yield, 50.0 mm Span [8]	85.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
-30°C	150	J/m	ASTM D256
23°C	790	J/m	ASTM D256
-30°C [9]	15	kJ/m²	ISO 180/1A
23°C [10]	60	kJ/m²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	72.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed, 100 mm Span [11]	125	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 6.40 mm	118	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span [12]	115	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	134	°C	ASTM D1525, ISO 306/B50 9 [13]
--	135	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	7.7E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	7.0E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	5.9E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	7.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec	100	°C	UL 746
RTI Imp	100	°C	UL 746
RTI Str	100	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	> 1.0E+15	ohms·cm	ASTM D257
Comparative Tracking Index (CTI)	PLC 2		UL 746
Hot-wire Ignition (HWI)	PLC 3		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.60 mm	V-0		
2.00 mm	5VB		
3.00 mm	5VA		
Glow Wire Flammability Index (1.60 mm)	960	°C	IEC 60695-2-12

Glow Wire Ignition Temperature		IEC 60695-2-13
2.00 mm	800	°C
3.00 mm	800	°C

Injection	Nominal Value	Unit
Drying Temperature	90.0 to 100	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	60.0 to 80.0	°C
Rear Temperature	230 to 260	°C
Middle Temperature	250 to 290	°C
Front Temperature	260 to 300	°C
Nozzle Temperature	250 to 290	°C
Processing (Melt) Temp	270 to 300	°C
Mold Temperature	60.0 to 90.0	°C

NOTE	
1.	5.0 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*3
10.	80*10*3
11.	120*10*4 mm
12.	120*10*4 mm
13.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

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